CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

Amendments to Appendices I and II of CITES

Thirteenth Meeting of the Conference of the Parties
Bangkok (Thailand), 2–14 October 2004

A. Proposal

Transfer the bald eagle (*Haliaeetus leucocephalus*) from Appendix I to Appendix II in accordance with the precautionary measures in Annex 4.B.2(b) of Resolution Conf. 9.24.

B. Proponent

United States of America.

C. Supporting statement

1. Taxonomy

1.1 Class: Aves

1.2 Order: Falconiformes

1.3 Family: Accipitridae

1.4 Species: *Haliaeetus leucocephalus* (Linnaeus, 1766)

1.5 Scientific synonyms: *Falco leucocephalus, Haliaeetus leucocephalus leucocephalus,* and *Haliaeetus leucocephalus alascanus* [subspecies are no longer recognized by the American Ornithologists' Union].

1.6 Common names:

Dutch	Amerikaanse Zeearend
English:	Bald eagle; White-headed eagle, American eagle
French:	Aigle à tête blanche; Pygargue à tête blanche
German:	Weißkopf-Seeadler
Italian:	Aquila di mare a testa bianca
Norwegian:	Hvithodehavørn
Spanish:	Águila cabeciblanca; Águila calva, Águila cabeza blanca; Pigargo americano; Pigargo cabeciblanco; Pigargo cabeciblanco meridional
Swedish	vithövdad havsörn

1.7 Code number: A-213.003.024.003

2. Biological parameters

2.1 Distribution

Bald eagles are limited to North America and breed in Canada, the United States of America, Mexico, and the French island territories of Saint Pierre and Miquelon. It is considered a vagrant when found in Belize, Bermuda, Ireland, Puerto Rico, and the U.S. Virgin Islands.

2.2 Habitat availability

Rangewide: Bald eagles are predominantly, but not exclusively, associated with water, and can be found along lakes, rivers, deltas, coastal zones, etc. They typically inhabit a variety of forested

ecosystems, but seem to prefer coniferous forests. They will, however, also inhabit arid sagebrush steppe, prairie, and desert environs if enough food can be found. Overall, there is no indication that availability of these habitats will limit the bald eagle population in the near future (USFWS 1999).

Northwestern and eastern portions of range: Habitat availability is very good in the northwestern portion of their range and good in the eastern portion of their range, as evidenced in part by population data. Populations are very robust in southern Alaska, the western coast of Canada, Washington, the Great Lakes region, and Florida, and the species is considered common along the Atlantic coast, particularly in the Chesapeake Bay area. The development of artificial reservoirs in the last 50 years has provided new breeding habitats for eagles in some areas (e.g., the southeastern United States), but has resulted in significant habitat loss in the southwestern portion of their range.

Southwestern portion of range: In the long run, habitat availability may eventually be a limiting factor for populations in the southwestern portion of the range, where riparian forests provide the most suitable environments. Riparian forests are naturally restricted habitats with narrow, linear distributions, which have been further restricted and degraded by human activities over the last 200 years.

Despite these limitations, the U.S. Fish and Wildlife Service believes that there currently is sufficient habitat for existing populations to expand beyond their current levels. As of 1998, only 40 nesting pairs inhabited the American southwest. Although most of that population was concentrated along the Salt and Verde Rivers in central Arizona, birds were expanding into several other river systems (Gila, Sand Carlos, Bill Williams, and Rio Grande). The number of breeding pairs in the American southwest has doubled in the last 15 years. Although this is an appreciable growth rate, one should recall that, on a nationwide basis (in the United States), populations have been doubling roughly every 7 years.

Habitat availability in Mexico is somewhat difficult to assess, but is expected to be relatively low and somewhat fragmented. Likewise, populations in Mexico are difficult to assess (del Hoyo *et al*. 1994), but are believed to be relatively low and somewhat fragmented.

2.3 Population status

2.3.1 Contemporary status

Wild populations are sufficiently robust to no longer require intensive nationwide surveys. According to the official website of Environment Canada (http://www.cws-scf.ec.gc.ca/birds/news/bt03/index_e.cfm), "There are now over ten times as many wintering Bald Eagles in coastal BC [British Columbia, Canada] than during the 1960s (increasing annually by 7.98%)." Populations in Mexico, however, have not been confirmed, but are believed to be less robust. As might be expected, the rapid growth of populations throughout the United States has resulted in a concomitant decline in need to collect detailed demographic data. Consequently, many agencies have ceased intensive surveys.

2.3.3 Captive populations

According to the International Species Information System (ISIS), there are currently just over 340 bald eagles held by 150 institutions worldwide (137 ?, 159 ?, 48 unverified sex) (website: www.isis.org. September 19, 2003).

Bald eagles reproduce fairly well in captivity, as evidenced by the success of the Patuxent Wildlife Research Center of the U.S. Fish and Wildlife Service. At one point, the Center assembled the largest colony of breeding bald eagles in captivity for reintroduction to the wild. In 1988, Patuxent's breeding program was terminated since eagles were reproducing successfully in the wild. In total, 124 bald eagles were hatched at Patuxent.

2.3.3 Historical status

When the United States adopted the bald eagle as its national symbol in 1782, it is estimated that there were 250,000 birds in the 48 conterminous states. Subsequent intense hunting,

unintentional poisonings, and habitat destruction in combination with the loss of great herds of bison, which were a seasonally important food source, conspired to decimate eagle populations continent-wide. By 1963, those same 48 states had only 417 nesting pairs. Although, there are no such historical records for Canada, France, or Mexico, trends over that same 180-year period are believed to be analogous. Blood and Anweiler (1991) estimated that 70,000 eagles occurred in North America, with nearly a third (21,000) occurring in British Columbia. The Alaska population is about 30,000, and perhaps almost that many occur in western Canada. The estimated number of breeding pairs in Canada in the early 1990s was 15,000–20,000 (Kirk et al. 1995). According to del Hoyo *et al*. (1994), from 1992 data, there are 40,000–50,000 birds in Alaska, 20,000–30,000 British Columbia, and 12,000 in Saskatchewan.

2.4 Population trends

Over the last 30 years, the bald eagle population in the conterminous 48 United States has effectively doubled every 7–8 years (USFWS 1999). Generally speaking, the population of bald eagles throughout much of the species' range has rebounded dramatically since their first being listed under CITES and the U.S. Endangered Species Act of 1973.

In 1994, there were approximately 4,450 breeding areas in the 48 conterminous states of the United States that produced an average of 1.16 young per nest. Considering that the rate of reproduction necessary to ensure sustainability is 0.7 young per nest per year (Sprunt et al. 1973), it was evident that eagle populations were growing. Statistics from 1994 represent a 462% increase over 1974 estimates. Four years later (1998), there were 5,748 breeding areas, with all but two states supporting nesting pairs.

Recent results from the Pacific region of the United States (USWFS 1999) indicated a reproductive rate averaging 1.0 young per pair, suggesting that the population was continuing to grow. Between 1979 and 1999, populations in the northwest, Great Lakes, Chesapeake Bay, and Florida have increased five-fold.

2.5 Geographic trends

2.5.1 Regional differences

The strongest populations are located in the northwestern part of the range (Alaska and British Columbia), where they are approaching 100,000 birds. They are least robust in the southwestern United States and Mexico. These population disparities are believed to be due to habitat differences. The northwest has extensive areas of relatively intact forest and coastline and has abundant stocks of salmon (*Salmo* spp.), a rich food source. In the southwest, eagles are typically restricted to thin, riparian forests, which have been impacted throughout their extent.

2.5.2 Seasonal differences

Migration is common in some populations but not others. Migration patterns are complex and usually vary according to age, distribution of breeding sites, climate, and food availability.

2.6 Role of the species in its ecosystem

Bald eagles are predators of fishes, small mammals, waterfowl, and other water birds, but are also scavengers, particularly during winter months. Purportedly, the presence of top predators can contribute to an increased diversity of prey species. Outside the breeding season, eagles commune (except during periods of resource scarcity, when they will behave aggressively toward each other). During the breeding season, however, eagles will defend territories against conspecifics. Bald Eagles are known to steal food from ospreys (*Pandion haliaetus*) and harass and be harassed by golden eagles (*Aquila chrysaetos*), other raptors, and corvids (Buehler 2000).

2.7 Threats

2.7.1 Pollutants

Despite the fact that there are still restricted areas where contaminant levels continue to impact bald eagle populations (e.g., southern California, Columbia River, Great Lakes, and portions of the State of Maine, among others), acute contamination has decreased significantly and no longer threatens the existence of the species continent-wide.

Organochlorine contamination: As top predators, bald eagles suffer from bio-accumulation of certain toxins. During the 1960s, bald eagles were detrimentally affected by the use of organochlorine pesticides like dichloro-diphenyl-trichloroethane (DDT) and its derivative, dichloro-diphenyl-dichloro-ethylene (DDE), along with polychlorinated biphenyls (PCBs) and heavy metals. Organochlorines cause a myriad of effects on bald eagles ranging from eggshell thinning, neurobehavioral and developmental dysfunction, physical malformations, compromised reproductive function, and an increased susceptibility to diseases. The use of DDT was banned for most uses in Canada in 1969, France in 1987, and in the United States in 1972. Since 1997, Mexico has severely restricted the use of DDT and intends on phasing it out completely by 2007. Reductions in DDT levels in freshwater fish over time have coincided with a steady increase in bald eagle numbers (USFWS 1999).

Mercury contamination: Methylmercury (CH_3Hg) is a natural byproduct from the bacterial decomposition of vegetation under anoxic conditions, such as in the deep waters of impoundments. High concentrations of methylmercury, however, are very often linked to anthropocentric sources, including industrial production, spills, and vehicle emissions. Methylmercury is absorbed more rapidly and excreted more slowly by fatty tissues than is elemental mercury, and it bioaccumulates.

Clinical and pathological symptoms of mercury poisoning include feeding and digestion problems, including inflammation and ulceration, as well as organ and sensory failure, tissue swelling, and impaired reproductive function. Young animals also suffer compromised brain function, damage to eyes and ears, and retarded growth. Despite restrictions on the use of mercury, concentrations did not change appreciably between 1974 and 1999. Mercury levels are believed to be stable due to continued atmospheric deposition.

Lead contamination: Lead shot (from shotguns) has been the primary source of contamination in bald eagles. Prey species, like ducks, are either embedded with lead shot from non-lethal shootings or ingest lead directly in the form of fishing sinkers or "spent" shot. Lead affects animals through decreased appetite, partial paralysis of the digestive system; compromised motor, renal, and reproductive function; tissue swelling; anemia; lethargy; and other complications. The United States banned the use of lead shot for waterfowl hunting in 1991. Canada instituted its own national ban 8 years later in 1999. No information has been found on the use of lead shot in Mexico or St. Pierre and Miquelon (France).

2.7.2 Disease

Although individual eagles are susceptible to several diseases (e.g., avian cholera, avian pox, aspergillosis, tuberculosis, Mexican chicken bug, and botulism), disease is not considered a threat to the species. This appears to be true for two diseases that have recently arrived on the continent, West Nile Virus (WNV) and Avian Vacuolar Myelinopathy (AVM).

Avian Vacuolar Myelinopathy (AVM) was first officially recognized in the winter of 1994–1995, when 29 eagles perished at DeGray Lake, Arkansas. Since then birds in Georgia, North Carolina, South Carolina, and Texas have also been diagnosed with the disease. AVM is the most significant unexplained cause of eagle mortality in the United States. According to the Southeastern Cooperative Wildlife Disease Center (Athens, Georgia), AVM has been confirmed or suspected in the deaths of 93 bald eagles in four U.S. states (Arkansas, Georgia, North Carolina, and South Carolina) since 1994.

West Nile virus is another recent disease affecting bald eagles. The West Nile Virus was first detected in New York City in the fall of 1999 and has spread westward across the continent. It is an arbovirus, transmitted by mosquitoes and perhaps by other blood-sucking parasites. Despite the fact that eagles are susceptible to WNV and the lack of data on its affect on wild populations, many experts do not believe it jeopardizes the continued growth of eagle populations.

2.7.3 Electrocutions, collisions, poachings, and poisonings

One major cause of mortality in bald eagles is collision with man-made structures and electrocution from power lines. Birds make contact with power sources when they build their nests on power poles or land on electrical transformers. The U.S. Fish and Wildlife Service and Environment Canada continue to work with power companies to minimize electrocution events by properly fitting and insulating electrical components.

2.7.4 Human disturbance

Eagles are perhaps most sensitive to human disturbance during the breeding season when nest abandonment (or relocation) can compromise that season's reproductive success (Buehler 2000). Studies in the State of Washington revealed that the vast majority of wintering bald eagles tolerated human activities at a distance of 300 meters, whereas only half tolerated activity at a distance of 150 meters (Stalmaster and Newman 1978; Buehler 2000). It appears that boating is the most disturbing human activity for eagles followed closely by hiking and vehicular traffic (Buehler 2000).

2.7.5 Predation

There are few non-human species with the inclination or ability to prey upon immature or adult bald eagles unless birds are compromised by starvation, disease, or injury (Buehler 2000). Eggs and nestlings are the most vulnerable to predation from a variety of birds and mammals, including the magpie (*Pica pica*), American crow and common raven (*Corvus* spp.), raccoon (*Procyon lotor*), and black bear (*Ursus americanus*).

3. Utilization and trade

Worldwide, bald eagles are most commonly used for educational and display purposes in zoos, aviaries, raptor centers, and similar facilities. There are about 340 bald eagles on display throughout the world (per International Species Information System website: www.isis.org. September 19, 2003).

There appears to be little evidence suggesting a strong demand for eagles or eagle parts on an international scale aside from ceremonial use by indigenous Native American groups in Canada and the United States. Some international demand exists from collectors of these artifacts.

3.1 National utilization

Bald eagle parts are used for ceremonial purposes by indigenous Native American peoples residing in Canada, Mexico, and the United States. The demand for eagle corpses and parts by Native American tribes is managed in part by the U.S. Fish and Wildlife Service through the National Eagle and Wildlife Property Repository (Repository). The Repository collects bald and golden eagle corpses and parts from across the country for eventual distribution to federally recognized Native American tribes through a permitting process. Annually, the Repository fills between 1,300 and 1,500 requests from Native American tribes for these specimens (in 2002: 1,399; 2000: 1,488; 1999: 1,314). The greatest disparity between demand and supply actually exists for the golden eagle, not the bald eagle.

3.2 Legal international trade

Native Americans are afforded the right to take and transport bald eagles and eagle products under a permit system. According to the U.S. Fish and Wildlife Service's Office of Law Enforcement, there are

an average of 52 shipments of bald eagles or their parts through U.S. ports every year. Between 1997 and October 5, 2003, 81% of the 397 shipments were feathers and about 7% were claws and feet. Since the primary eagle products used in Native American ceremonies are feathers and claws, it might be inferred that at least a large portion of these shipments are for Native American ceremonial uses. Less than 2% of the shipments were labeled as "bodies," "trophies," or "unspecified."

3.3 Illegal international trade

Accurate data on illicit international trade is not easy to acquire, so indices are used to gauge its intensity. One index is uncleared shipments as reported by the World Conservation Monitoring Center (WCMC) and the U.S. Fish and Wildlife Service's Office of Law Enforcement (USFWS-LE). "Uncleared" shipments are those that are seized, abandoned, or deemed illegal. Another index is the caseload of USFWS-LE agents related to the Bald and Golden Eagle Protection Act.

Uncleared shipments: The USFWS-LE records all shipments of bald eagles through U.S. ports. Between 1997 and October 5, 2003, there was an average of nine shipments seized or abandoned every year.

The WCMC records all shipments of bald eagles between all ports in the world. Between 1985 and 2002, there was an average of about three shipments deemed "illegal" every year (minimum = 0, maximum = 10). An attempt was made to reconcile all U.S. shipments as recorded by the USFWS-LE and WCMC between 1997 and 2003, but only a portion of the records could be reconciled accurately.

Caseload: The USFWS-LE enforces the Bald and Golden Eagle Protection Act and maintains records on violations. An average of 179 of such violations are investigated annually. Note that not all cases involve international trade (many involve electrocutions, collisions, etc.) Secondly, some listed cases involve only golden eagles. Thirdly, because a single case can represent just one feather or several dozen corpses, the number of cases is not a precise indicator of the volume of birds affected. Despite limitations, this remains one of the better indices available.

3.4 Actual or potential trade impacts

Impacts from trade are not expected to be significantly detrimental to bald eagle populations following the transfer from CITES Appendix I to Appendix II. This is based in part on the facts that most eagle products are used by Native American tribes for ceremonial purposes and not for commercial trade.

3.5 Captive breeding for commercial purposes

There are currently no captive populations maintained primarily for commercial production purposes.

4. Conservation and Management

4.1 Legal status

4.1.1 National

Specific information was not obtained from Canada, France or Mexico regarding national legal protection of the species. In the United States, the bald eagle is protected by several federal laws, including the Bald and Golden Eagle Protection Act of 1940, the Lacey Act, the Migratory Bird Treaty Act, and the Endangered Species Act of 1973. Collectively, these laws prohibit taking, harassing, harming, pursuing, hunting, shooting, poisoning, wounding, killing, trapping, capturing, or collecting, possessing, selling, purchasing, bartering, exporting or importing between states or countries eagles or eagle products without appropriate permits.

The status of the bald eagle under the Endangered Species Act has changed dramatically in recent years. Listed as "endangered" since February 14, 1978, the eagle was downlisted to "threatened" on July 2, 1995. Four years later, on July 6, 1999, the U.S. Fish and Wildlife Service proposed that the bald eagle be completely delisted, although this action has not been

completed. Even after delisting, the Endangered Species Act requires that the Secretary of the Interior monitor the species for at least 5 years to ensure stability and recovery. As of April 2004, there are 119 Habitat Conservation Plans established under the Endangered Species Act for the bald eagle. Additionally, many U.S. states have listed the bald eagle under their own laws and regulations that limit capture and transport.

Other laws protect the bald eagle indirectly by regulating environmental contaminants or by protecting habitat for bald eagles and other wildlife. Mandatory hunter education classes promoted by many states teach bald eagle identification and regulations to new hunters.

4.1.2 International

In addition to CITES, the bald eagle is protected by bilateral migratory bird treaties between the United States and Canada and between the United States and Mexico.

4.2 Species management

4.2.1 Population monitoring

Canada—Populations are occasionally assessed at local and provincial levels, but nationwide surveys have ceased due to robust population levels.

France (Islands of St. Pierre and Miquelon)—Populations are not regularly nor systematically assessed by government agencies, but private records are kept locally (e.g., Etcheberry 1982).

Mexico—Regular and systematic nationwide population assessments have never been conducted. Local populations are monitored by state wildlife management agencies on an irregular basis.

United States—Populations are regularly assessed at local and state levels and additionally monitored regularly by the U.S. Fish and Wildlife Service.

4.2.2 Habitat conservation

In the United States, there are at least 397 federal properties on which bald eagles have been recorded, along with hundreds of other state and private properties. According to Restani and Marzluff (2001), "…41% of [federal] funds allocated to land purchase from 1993 to 1995 was directed toward the Bald Eagle and American Peregrine Falcon…."

4.2.3 Management measures

Regular management activities benefiting eagles are occurring on many private, state, and federal properties. Specific management information was not obtained from Canada, France or Mexico.

4.3 Control measures

See also 4.1.1 and 4.1.2 above.

4.3.1 International trade

Export from the United States is controlled under several laws previously mentioned (see 4.1.5), which are enforced by the U.S. Fish and Wildlife Service's Office of Law Enforcement. Because the bald eagle is currently listed in CITES Appendix I, commercial trade in the species is prohibited, and CITES enforcement agencies are responsible for enforcing the provisions of the Convention.

4.3.2 Domestic measures

In the United States, the U.S. Fish and Wildlife Service's Office of Law Enforcement enforces laws and regulations and maintains records of violations (see Figure 1). Canada, France, and Mexico, no specific information was obtained, but all three countries are CITES Parties that enforce the provisions of the Convention for the species.

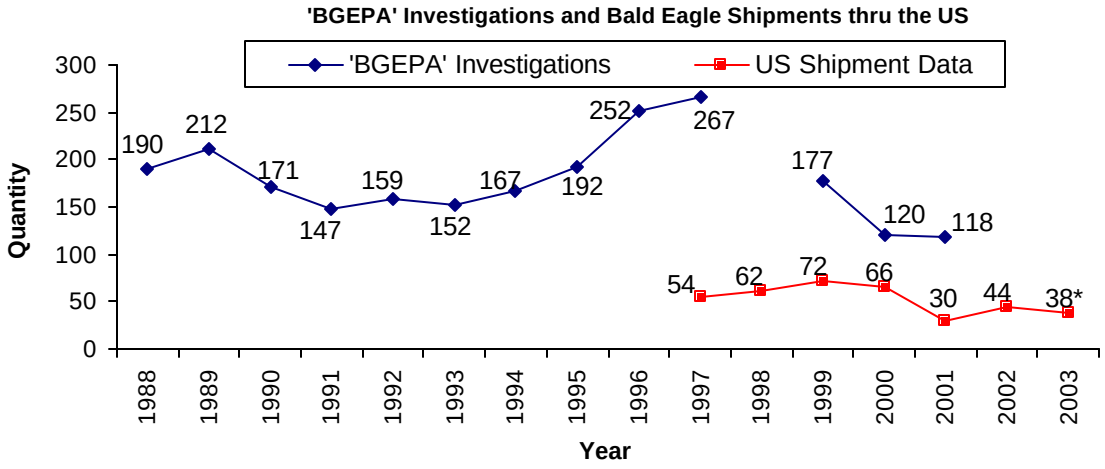

Figure 1. The number of bald eagle shipments (squares) and investigations (diamonds) by the USFWS-LE based on the Bald and Golden Eagle Protection Act (BGEPA) (1988 – 2003). Data: Shipments from LEMIS (2000); investigations from LE Annual Reports: 1990-1997 & 1999-2001).

5. Information on Similar Species

On the North American continent, only the golden eagle can be confused with the bald eagle. Three other species that might be confused with the bald eagle in trade, depending on whether the specimens in trade a mature or immature birds.

5.1 Golden eagle (*Aquila chrysaetos*) [CITES Appendix II]

Because immature bald eagles lack the typical white head and tail, and are mostly brown in color, they may be similar in appearance to the golden eagle, which is sympatric. Immature bald eagles have more white mottling in their coloration overall and have a yellow beak. Golden eagles are more solid brown in color and have a blue-black beak with a nearly black tip. After 4–5 years, bald eagles mature sexually and develop the distinctive white head and tail.

5.2 White-tailed sea eagle (*Haliaeetus albicilla*) [CITES Appendix I]

Immature white-tailed sea eagles can be distinguished from immature bald eagles in having much more white in the body plumage overall with streaks and mottling in rufous-brown. A pale buff-colored head and neck distinguishes adults. The range of the white-tailed sea eagle includes Europe and northern Asia.

5.3 White-bellied sea eagle (*Haliaeetus leucogaster*) [CITES Appendix II]

Adults can be distinguished by a gray-colored bill, wing plumage, and back; the white plumage of the breast and legs; and light-colored feet. The range of the white-bellied sea eagle includes India, southeast Asia, and Australia.

5.4 African fish eagle (*Haliaeetus vocifer*) [CITES Appendix II]

Distinguished by black wings, brown breast and back, and black beak. It ranges throughout Africa south of the Sahara.

6. Other Comments

All other range states (Canada, France, and Mexico) responded favorably to this proposal.

7. Additional Remarks

The bald eagle was adopted as the national symbol of the United States in 1782 and is found on many official national and state insignia (e.g., currency, flags, seals, logos).

8. References

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